Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

at our center between. Fluoroscopy time (FT, mins) and DAP (Dose Area Product, cG y* cm^2) were used as surrogate outcomes for patient's effective dose. Descriptive statistics were used to describe patients' baseline demographic and disease characteristics and perioperative variables. Correlation between FT and DAP was tested using Spearman correlation. MVA linear regression analysis according to maximum likelihood were used to identify any predictors increased risk of RE.
Results: Patients were mostly male (89, 70.6%). Median age was 58 (46.8–69) yrs. Median BMI was 26.03 (23.1–27.9) kg/m^2; median preoperative serum creatinine was 1 (0.85–1.24) mg/dL. At preoperative imaging, median number of stones was 1 (1; 1) per patient; median largest stone diameter was 10 (8; 14) mm. 4 (3.2%) patients underwent URS, 83 (65.9%) RIRS, 38 (30.2%) ELT and 1 (0.8%) combined URS and RIRS. Median operative time was 45 (30; 60) minutes. Median FT was 1 (0.6; 1.3) minutes; median DAP was 295 (174.5; 485.5) cGy*cm^2. Correlation between FT and DAP was <0.0001. At MVA linear regression analysis for DAP, male gender (p = 0.006), BMI (p < 0.0001) and largest stone diameter (p = 0.009) were significant predictors for higher risk of RE. At MVA linear regression analysis for FT, only procedures on upper urinary tracts were significantly associated with higher risk of RE.
Conclusions: Although low, the risk of RE during the treatment of urinary tract stones should not be neglected, especially in case of younger patients, complex and/or repeated procedures. The reduction of exposure should be well kept in mind without affecting procedures' outcomes and safety.

SC85 Urolithiasis during COVID-19 outbreak: how the pandemic impact hospitalization, complications and clinical management of the patients admitted to emergency department for stone disease

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Introduction: During the Covid-19 outbreak in Italy, a lot has changed in hospital admissions and emergency department (ED) accesses for urological diseases, particularly regarding urolithiasis. The aim of our study was to evaluate if a reduction of the number of patients admitted to ED and an increase in complications would have been noted during the pandemic.
Materials and methods: We conducted a multicentric retrospective analysis of emergency department admissions in three high volume urology departments (one in a hospital directly involved in COVID-19 patients management and two in hospitals not involved) in Roma - Italy between March and April 2020 and in the same period of 2019. Statistical analysis was conducted on the number of admissions for urolithiasis, rate of complications, hospitalization and the type of treatment received.
Results: 304 patients were included in the analysis. A significant reduction in the global number of patients admitted to ED for urolithiasis between 2019 and 2020 (48.8%) was noted. The rate of complications (fever, perinephric fluid collection, acute kidney failure) in 2020 was higher than 2019, with a statistically significant difference (20.4% and 10.9% respectively, p : 0.025).
Even the hospitalizations were significantly different in the two series analyzed, 38.8% in 2020 and 20.9% in 2019, with a p : 0.001.
Moreover, regarding the choice of treatment of hospitalized patients, a statistically significant increase of stone removal procedures versus urinary drainage was reported in 2020 (p : 0.015).
Conclusions: During the COVID-19 pandemic in Roma there has been a significant reduction of emergency admissions for urolithiasis. Patients admitted to ED had more complications, more frequently need hospitalization and regarding clinical management early stone removal was preferred over urinary drainage only. All the urologists should be aware that in the next months after the Covid-19 outbreak they could face an increased number of admissions for urolithiasis and manage more complicated cases.

SC86 ESWL in the 21th century: Results from a multi-institutional international study

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Introduction: ESWL represents a minimally invasive treatment for urolithiasis.For years, ESWL has been considered the gold standard for small and medium-sized renal stones; though, the current EAU Guidelines recommend either ESWL, RIRS and PNL for stones ranging from 10 to 20 mm. Actually, ESWL has been recently challenged by the diffusion of endourology, especially RIRS, sustained by a number of technological advances. The aim of this multicentric international study is to describe the role of ESWL in a contemporary series of patients presenting with a single renal stone 10–20 mm in size.
Materials and methods: This is a retrospective observational study of data from ESWL treatments collected prospectively in six centers ("Sant'Andrea Hospital" in Roma, AORN "A.Cardarelli" in Napoli, "Mater Salutis" Hospiral in Verona, "Maggiore Hospital" in Parma, University of Modena and Reggio Emilia and Tanta University). Inclusion criterion was the presence of a single renal stone, sized 10 to 20 mm, treated with ESWL. Centers were asked to report on patients' characteristics (age, gender, previous renal surgery, renal comorbidities), stone-related features (size, location, HU density, stone to skin distance, hydronephrosis) and concomitant UTI. The primary endpoint is to assess the stone free rate (SFR), defined as the absence of clinically significant residual fragment at three months, and the need for auxiliary procedure; a regression analysis of factors impacting on SFR has been performed as well and considered as a secondary endpoint. Data were analyzed with SPSS; after a descriptive analysis, T test for unpaired sample and non parametric test (correlation and chi square tests) were applied.
Results: A total of 700 patients with a single renal stone was collected (440 males, 260 females). Mean age was 50,7 years (range 18–96, DS 15). Mean stone size was 12,6 mm (range 10–25, DS 2,8); mean HU density value was 832 (260–1643), and mean stone to skin distance was 89 mm (range 51–160, DS 16,3). One-hundred and eighty-two patients underwent previous renal surgery (including endourology); 14 patients had a concomitant UTI and underwent ESWL during antibiotic therapy. The location was pielic in 43% of patients (n = 303) and lower caliceal in 25% (177), whereas upper and middle calyx accounted for the remaining 32%. Pre-treatment hydronephrosis was evident in 30% (213). Overall, SFR at three months was 88,4% (630/700); of the SFR patients, 54,8% of the patients were SF after a single session, whereas the remaining had a repeated treatment (21,6% had 2, 17,6% had 3, 10% had >= 4 treatments). From the regression analysis of all variables, the HU density (p = 0.00) and the number of sessions (p = 0.04) were the covariates significantly related to SFR. No renal haematomas were reported in the subset of patient from each centre.
Conclusions: Beyond small stones, ESWL still represents an effective option for the treatment of renal stones sized 10 to 20 mm. Eligible patients should be counseled about the likelihood of repeated sessions, balanced by the safety and by the outpatient feature - without the need for OR availability – particularly fitting the current post-pandemic scenario.